
TENTH ANNUAL REPORT
OF
THE TRUSTEES
OF THE
MASSACHUSETTS
STATE SANATORIUM
AT RUTLAND.

NOVEMBER 30, 1906



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OFFICERS

OF THE

MASSACHUSETTS STATE SANATORIUM.

TRUSTEES.

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A. C. GETCHELL, M.D.,	WORCESTER.
MRS. FANNY S. RUSSELL,	BROCKTON.
MRS. SYLVIA B. KNOWLTON,	WEST NEWTON.
J. F. A. ADAMS, M.D., <i>Chairman</i> ,	PITTSFIELD.
A. W. ESLEECK,	HOLYOKE.

EXAMINING AND VISITING PHYSICIANS.

HERBERT C. CLAPP, M.D.,	BOSTON.
EDWARD O. OTIS, M.D.,	BOSTON.

RESIDENT OFFICERS.

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HENRY B. DUNHAM, M.D.,	. <i>Physician.</i>
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JOHN E. RUNNELLS, M.D.,	. <i>Assistant Physician.</i>

MARY E. THRASHER,	. . . <i>Matron and Superintendent of Nurses.</i>
CHARLES E. CARROLL,	. . . <i>Clerk and Steward.</i>
RUTH MONTAGUE,	. . . <i>Dietitian.</i>
WILLIAM F. MOORE,	. . . <i>Chief Engineer.</i>
FREDERICK H. DRURY,	. . . <i>Farmer.</i>

Commonwealth of Massachusetts

REPORT OF TRUSTEES.

To His Excellency the Governor of the Commonwealth and to the Honorable Council.

The trustees of the Massachusetts State Sanatorium respectfully submit their tenth annual report.

The Board of Trustees remains the same as last year, with the exception of John C. Hammond, who resigned in July last, after eleven years of faithful and devoted service, having been chairman of the Board all of that time. The vacancy was filled by the appointment of Dr. J. F. A. Adams of Pittsfield, who has been elected chairman of the Board. Mr. A. W. Esleeck, whose term expired, has been reappointed.

Dr. Edward O. Otis became visiting physician Jan. 1, 1906, being elected to fill the position formerly held by Dr. Vincent Y. Bowditch, who for eight years had served the sanatorium with conspicuous ability.

Dr. Walter J. Marcley, who from the beginning has been the faithful and efficient superintendent, has been appointed chief medical and executive officer of the new State Sanatorium of Minnesota, and has tendered his resignation, to take effect Feb. 1, 1907.

The house staff of physicians is the same as last year, except that the office of pathologist has been abolished, and instead three junior assistants have been employed.

Four new local examining physicians have been appointed : Drs. E. H. Copeland and J. C. Hanson, at Northampton ; Dr. Charles T. Canedy, at Greenfield ; and Dr. R. A. Woodruff, at Pittsfield.

CHANGE IN ADMINISTRATION.

In accordance with the recommendation of the State Board of Charity, indorsed and actively advised by the Governor and Council, the trustees have decided to change the mode of administration by appointing a resident medical superintendent, who shall have full medical and executive charge, and to dispense with the services of the visiting physicians. The Board is making careful inquiries, and hopes soon to find the right person to fill this important and responsible position.

BUILDINGS.

The infirmary building is now completed, and occupied by patients. This affords separate rooms for the very sick, and relieves the overcrowding of the wards.

Additional piazzas are greatly needed, where patients can sit out, sheltered from the wind. We fully concur with the superintendent and the visiting physicians as to the importance of this addition, and ask for an appropriation of \$2,000 for this purpose.

The barn is a disfigurement to the grounds, standing, as it does, on the front lawn and close to the road; and it is so old and decrepit as to be a discredit to the State. A new barn should be built, on the other side of the road and a little farther away from the sanatorium. A new farmhouse is also needed, with sufficient accommodations for the farm laborers, for whom there is now no adequate provision. A new piggery, farther removed from dwellings, is also a necessity.

For these changes an appropriation of \$20,000 is respectfully asked. The appropriation of \$4,000, made last year, was found to be inadequate and has not been used.

ROAD TO THE STATION.

We beg leave to refer to our previous reports in the matter of a new road to the sanatorium station, on the Boston & Maine Railroad, and we again ask for an appropriation for this purpose. The former estimate was \$4,000, but, owing to the increased price of labor and materials, the present estimate is \$5,141. All the coal and other supplies for the sanatorium

must be carted a mile and a half over this road, which is rough and hilly, and in spring excessively muddy. By a change in location of a portion of the road the steepest hill will be avoided, and by macadamising the whole the difficulty of transportation will be greatly lessened, resulting in a saving which in a few years will pay for the outlay. As this road is but little used except by the sanatorium, the Highway Commission has decided that it is not a suitable location for a State road, and therefore this improvement can only be made through a special appropriation by the State, with such assistance as may be given by the town of Rutland.

THE SANATORIUM INTENDED FOR INCIPIENT CASES ONLY.

This institution was established by the State on the theory that incipient pulmonary tuberculosis is a curable disease. Its history, up to this time, has confirmed the theory. But the sanatorium has been so enlarged that not enough incipient cases apply to fill it. At the present time not more than one-third of the patients are strictly in the incipient stage; the remainder are in more or less advanced stages. While many of the latter will be greatly improved and perhaps able to return to their work, there is little expectation that they will be cured. We think that this should be clearly understood, for two reasons: first, that the real and substantial work of the sanatorium — the cure of incipient tuberculosis — may not suffer from the results that are sure to follow under the present conditions; and, secondly, that those who need may apply early, and physicians be taught to send their patients to the sanatorium in the incipient stage of the disease.

We wish it also to be understood that it is the policy of the institution to admit every incipient case at once, and that it is only more advanced cases who are obliged to wait for vacancies.

RULE CONCERNING PAYMENT.

We find it necessary to emphasize the fact that the purpose of the institution is to furnish State help, but not to assume the care of State charges, and to correct the impression which seems to prevail in some quarters, that patients are only expected to pay the charge of \$4 per week for a few weeks.

They are expected to pay during their entire stay in the institution, and are only excused from doing so for very imperative reasons.

ESTIMATES.

The estimates for the ensuing year are as follows : —

For maintenance,	\$170,000
For new road to station,	5,141
For piazzas,	2,000
For improvement of grounds,	500
For farm buildings,	20,000

The estimate for maintenance a year ago was \$165,000, but the appropriation was only \$150,000; consequently, we have to report a deficit of \$11,741.44, for which a special appropriation is necessary.

The estimate is based upon an average cost per capita during the past year of \$9.38. This is an increase of 55 cents a week for each patient over the previous year. This increase is chargeable to the generous feeding, which is considered an important part of the treatment.

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ALBERT C. GETCHELL,
FANNY S. RUSSELL,
SYLVIA B. KNOWLTON,
J. F. A. ADAMS,
A. W. ESLEECK,

Trustees.

Nov. 30, 1906.

REPORT OF SUPERINTENDENT AND TREASURER.

To the Board of Trustees.

LADIES AND GENTLEMEN:—I have the honor to present herewith my report for fourteen months, from Oct. 1, 1905, to Nov. 30, 1906.

The total number of applicants during this time was 2,102; of these, 897 were accepted for admission, 712 not accepted and 493 were considered doubtful. There were 554 re-examinations; of these, 182 were accepted, 265 not accepted and 107 considered doubtful.

Admissions and Discharges.

PATIENTS.	Males.	Females.	Totals.
Number of patients in the sanatorium Oct. 1, 1906, .	181	177	358
Number admitted within the fourteen months, . .	567	546	1,113
Number discharged during this time,	573	566	1,139
Number of deaths,	9	1	10
Patients remaining in the sanatorium Nov. 30, 1906, .	175	157	332
Daily average number of patients,	177	161	338

The daily average number of patients (338) was 31 more than the daily average of last year.

The average age of patients was twenty-seven years.

Residence of Patients admitted.

COUNTIES.	Patients.	COUNTIES.	Patients.
Suffolk,	383	Norfolk,	47
Middlesex,	245	Plymouth,	50
Essex,	98	Hampshire,	8
Worcester,	131	Berkshire,	20
Bristol,	47	Barnstable,	2
Hampden,	69	Franklin,	13

Civil Condition.

	Males.	Females.	Totals.
Single,	328	336	664
Married,	224	179	403
Widowed,	15	30	45
Divorced,	—	1	1

Occupations.

	Males.	Females.		Males.	Females.
Actors,	2	1	Brakemen,	3	—
Architects,	2	—	Boilermakers,	1	—
Attendants,	1	2	Bookbinders,	3	1
Barbers,	7	—	Bell boys,	3	—
Bartenders,	3	—	Bakers,	7	—
Blacksmiths,	5	—	Bootblacks,	2	—
Bookkeepers,	8	10	Brewers,	2	—
Butchers,	4	—	Butlers,	1	—

Occupations — Continued.

	Males.	Females.		Males.	Females.
Carpenters, . . .	14	-	Factory and mill oper- atives.	109	82
Cigarmakers, . . .	3	1	Farmers, . . .	3	-
Clerks, . . .	39	19	Firemen, stationary,	1	-
Coachmen, . . .	5	-	Firemen, locomotives,	1	-
Chauffeurs, . . .	1	-	Foremen, . . .	3	-
Conductor, electric railway.	4	-	Foundryman, . . .	1	-
Cooks, . . .	3	3	Fishhandlers, . . .	3	-
Cashiers, . . .	-	2	Grocers, . . .	1	-
Cabinet makers, . .	1	-	Hatmakers, . . .	2	-
Civil engineer, . . .	1	-	Hackman, . . .	1	-
Checker, . . .	1	-	Housework, . . .	-	55
Conductor, . . .	1	-	Housewives, . . .	-	150
Cash girl, . . .	-	1	Harness makers, . .	1	-
Cable splicer, . . .	1	-	Iron moulders, . . .	1	-
Chair maker, . . .	1	-	Janitors, . . .	6	-
Collectors, . . .	3	-	Jewelers, . . .	4	-
Draughtsmen, . . .	2	1	Laborers, . . .	29	-
Domestics, . . .	-	52	Ladies' maids, . . .	-	6
Dressmakers, . . .	-	14	Laundresses, . . .	-	3
Decorators, . . .	1	-	Letter carriers, . .	4	-
Demonstrator, . . .	-	1	Longshoremen, . . .	3	-
Dentists, . . .	2	-	Machinists, . . .	32	-
Engravers, . . .	2	-	Messengers, . . .	2	-
Engineers, marine, .	2	-	Motormen, . . .	7	-
Engineers, stationary,	2	-	Milliners, . . .	-	8
Errand girl, . . .	-	1	Musicians, . . .	4	-
Electricians, . . .	2	-	Masons, brick, . . .	5	-

Occupations — Concluded.

	Males.	Females.		Males.	Females.
Mechanics, . . .	3	-	Stenographers, . .	2	16
No work, . . .	-	4	Storekeepers, . .	12	1
Newspaper reporters,	2	-	Stonecutters, . .	7	-
Nursemaids, . .	-	2	Students, . . .	24	27
Nurses, student, . .	-	3	Seamstresses, . .	-	21
Nurses, trained, . .	-	11	Sailors, . . .	2	-
Newsboy, . . .	1	-	Shipbuilder, . .	1	-
Opticians, . . .	2	-	Starter, . . .	1	-
Painters, . . .	4	-	Steamfitters, . .	5	-
Plumbers, . . .	5	-	Lawyers, . . .	3	-
Peddlers, . . .	7	-	Store detective, . .	-	1
Pharmacists, . .	1	-	Stereotyper, . .	1	-
Pressman, . . .	1	-	Straw worker, . .	1	-
Printers, . . .	11	1	Tailors, . . .	18	4
Proofreader, . .	1	-	Teachers, . . .	2	11
Physician, . . .	1	-	Teamsters, . . .	16	-
Policeman, . . .	1	-	Telephone operators,	-	10
Paper cutter, . .	1	-	Tinsmith, . . .	1	-
Packers, . . .	2	-	Upholsterers, . .	2	-
Preachers, . . .	2	-	Waiters, . . .	2	6
Roofer, . . .	1	-	Wood carvers, . .	2	-
Rodman, . . .	1	-	Watchman, . . .	1	-
Salespeople, . .	26	14	Watch repairer, . .	1	-
Shoecutters, . .	10	-	Wagon makers, . .	2	-
Shoemakers, . .	2	-	Watchmakers, . .	1	-
Shippers, . . .	7	-	Wig maker, . . .	-	1

The physical condition of patients admitted this year was about the same as the physical condition of those admitted last year. Thirty-six per cent. of the considered cases under treatment are classified as incipient, 41 per cent. as moderately advanced and 21 per cent. as advanced. These facts, taken together with the results tabulated in the visiting physicians' report, should be considered in connection with any consideration of the comparative expenses for the two years. It is further to be noted that for the last two years the per cent. of arrested or apparently cured cases has been less than for the previous years. This condition is undoubtedly attributable to the enlargement of the institution, and the admission of more advanced cases in order to fill vacancies. I repeat the hope expressed in my report of last year, that, as the work of the sanatorium becomes more widely known, a larger percentage of the earlier cases will apply for admission.

The out-patient department, established by your Board, was organized and the first patient treated Feb. 10, 1906. Since that date 210 out-patient calls are registered. Dr. D. P. Butler of Rutland has been on duty every Thursday, and the physicians in the sanatorium have treated patients applying on Tuesdays and Saturdays. A certain amount of this work had been previously done by the resident physicians, without having definite days for this purpose. The present system seems to be working satisfactorily, and should be continued.

The present facilities for carrying on the laboratory work, while for several years considered sufficient for the routine examinations of sputum, urine and blood, are now quite inadequate for the needs of the institution. There is required for this purpose a simply constructed detached building, conveniently located, and provided with some means of supplying gas for heating incubator and for other purposes. It is also hoped that a man especially trained for pathological work may in the near future be added to the resident medical staff. If the best use is to be made of the admirable and abundant material here provided for scientific study, such an officer is essential.

It has been difficult to secure nurses and other women workers, partly because our accommodations for these assist-

ants are poor. Some years ago, when buildings were planned for the enlargement of the institution, a nurses' home was included in the plans. The institution has been equipped in almost every other way, but the nurses' home has not been provided.

The organization of a training school for nurses at the sanatorium would be a benefit to the institution. If we could offer a systematic course of instruction in this special line of work, it would attract young women who would be glad to give some time in the institution at a moderate salary. Graduate nurses from other schools would probably like to take a special course of instruction of three or four months. The extent of this institution's work is now sufficient to provide valuable material for instruction. There is a growing demand for young women who have had some experience in caring for cases of tuberculosis. Furthermore, the expense to the institution for nursing, which is now considerable, would undoubtedly be lessened by the employment of pupil nurses.

More piazza space is urgently needed, and it is hoped will be supplied in the near future.

The development of the grounds about the buildings is a matter which should not be overlooked. We have tried, with our so-called "working gang" of patients, to make some improvement every year, but we are in need of money to purchase loam and to provide trees and shrubs. The happiness of patients, which has a great deal to do with the medical progress of the case, is governed considerably by the immediate surroundings of the buildings. Nature has done a great deal for the site of the sanatorium. A yearly appropriation of a small sum would, after a few years, make the grounds very attractive.

A recreation pavilion, where patients could congregate out of doors for light games, is a needed addition.

We hope sometime to have a library building, provided with a large reading room, and erected especially for the purpose of "taking the treatment," with ample piazzas, perfect ventilation, etc. All well-equipped institutions of this kind have such buildings. We now have a collection of 1,500 volumes and more than 50 per cent. of the patients are constant readers. The enforced idleness of a several months' stay in the sana-

torium is made infinitely more pleasant and profitable by encouraging the intellectual in life. A few thousand dollars spent in this way would give a splendid return to the Commonwealth.

The educational factor in the work of the sanatorium would be greatly facilitated by the appointment of an officer whose duties would include visiting various parts of the State, to encourage ex-patients and assist in finding suitable employment for them, and in attempting to ameliorate the conditions under which the majority of ex-patients are required to work. Such an officer should be resident at the sanatorium, and have charge of the subsequent records of patients. Some of this work has been very well done by the Boston Association for the Relief and Control of Tuberculosis; but the number of persons as patients and ex-patients now connected with the sanatorium is so large that the appointment of a special officer to take charge of this work is very desirable.

The weekly per capita expense for the fourteen months is \$9.38, — an increase over last year of 55 cents. This increase is due largely to the increase in amounts of fresh meats used and to the higher prices paid for this article of food.

The detailed financial report for this time is as follows : —

RECEIPTS.

Cash on hand Oct. 1, 1905, as per ninth annual report,	\$10,103 12
Received from State Treasurer,	248,792 50
Received from patients for board and treatment,	55,886 82
Received from cities and towns for support of patients,	3,818 81
Received from State, soldiers' relief, and from charitable associations for support of patients,	3,846 69
Received from patients for hospital and cuspidor supplies,	2,785 21
Received from patients for telephone and telegraph,	155 26
Received from patients for freight and express,	55 66
Received from patients for stationery and office supplies,	207 83
Received from patients for sundries,	324 46
Received from sale of farm products,	2,391 34
<i>Amount carried forward,</i>	<i>\$328,367 70</i>

<i>Amount brought forward,</i>	\$328,367 70	
Received from sale of grease,	1,613 20	
Received from sale of other merchandise,	1,063 60	
Received for livery,	4 50	
Received as interest on bank balance,	204 08	
		<hr/> \$331,253 08
EXPENSES.		
Salaries and wages,	51,289 12	
Food:—		
Butter and butterine,	\$5,466 81	
Beans,	49 74	
Bread and crackers,	138 55	
Cereals, rice, meal, etc.,	630 69	
Cheese,	166 65	
Eggs,	10,933 71	
Flour,	1,938 95	
Fish,	1,456 47	
Fruit,	3,384 31	
Meats,	41,151 61	
Milk,	7,112 12	
Molasses,	73 46	
Sugar,	2,089 08	
Sundries,	1,535 55	
Tea, coffee and cocoa,	849 48	
Vegetables,	4,325 38	
		<hr/> 81,302 56
Furnishings:—		
Beds, bedding, table linen, etc.,	\$1,864 85	
Brushes, brooms, etc.,	326 17	
Carpets, rugs, etc.,	147 09	
Glasses, crockery, etc.,	760 95	
Furniture and upholstery,	856 47	
Kitchen furnishings,	601 21	
Wooden ware, buckets, pails, etc.,	44 16	
Sundries,	91 60	
		<hr/> 4,692 50
Heat, light and power:—		
Coal,	\$10,216 15	
Oil,	157 97	
Sundries,	311 76	
Wood,	76 75	
		<hr/> 10,762 63
Repairs and improvements:—		
Cement, lime and plaster,	\$110 09	
Doors, sashes, etc.,	72 78	
Electrical work and supplies,	406 27	
		<hr/>
<i>Amounts carried forward,</i>	\$589 14	\$148,046 81

<i>Amounts brought forward,</i>	\$589 14	\$148,046 81
Hardware,	405 47	
Lumber,	437 37	
Machinery,	1 75	
Mechanics and laborers, not on pay roll,	3,418 63	
Paints, oils, glass, etc.,	531 13	
Plumbing, steam fitting and supplies,	911 27	
Roofing and materials,	34 78	
Sundries,	164 33	
		6,493 87
Farm, stable and grounds:—		
Blacksmith and blacksmith supplies,	\$283 85	
Carriages, wagons and repairs,	37 90	
Fertilizers, vines, seeds, etc.,	1,120 10	
Harness and repairs,	47 72	
Hay, grain, etc.,	3,346 89	
Labor, not on pay roll,	909 53	
Live stock:—		
Cows,	294 00	
Horses,	435 00	
Other live stock,	285 00	
Sundries,	359 29	
Tools, farm machines, etc.,	135 30	
		7,254 58
Miscellaneous:—		
Books, periodicals, etc.,	\$131 95	
Chapel services and entertainments,	485 80	
Freight, expressage and transportation,	2,635 71	
Hose, etc.,	21 66	
Ice,	84 38	
Medicine and hospital supplies,	4,889 92	
Expense for examining applicants,	1,822 63	
Medical attendance, nurses, etc.,	102 85	
Printing and printing supplies,	778 98	
Postage,	685 05	
Cuspidor supplies,	3,785 48	
Soap and laundry supplies,	2,510 10	
Stationery and office supplies,	612 50	
Sundries,	1,541 68	
Telephone and telegraph,	890 61	
Travel and expenses (officials),	1,280 20	
Water,	1,389 30	
		23,648 85
Total,		\$185,444 11
Extraordinary expense,	\$8,934 38	
Extraordinary expense, special appropriation,	26,465 72	
<i>Amounts carried forward,</i>	\$35,400 10	\$185,444 11

<i>Amounts brought forward,</i>	\$35,400 10	\$185,444 11
Sent to State Treasurer cash receipts on hand Sept. 30, 1905,	10,103 12	
Sent to State Treasurer cash receipts of current year,	72,357 46	
Cash on hand,	2,500 00	
Liabilities of 1905 (paid this year),	25,448 29	
	<hr/>	145,808 97
		<hr/>
		\$331,253 08

RESOURCES AND LIABILITIES.

Resources.

Cash on hand,	\$2,500 00	
Bills receivable,	5,863 74	
Unexpended appropriation for expenses, . .	1,875 77	
Total resources applicable to ordinary ex- penses,	<hr/>	\$10,239 51

Liabilities.

Salaries unpaid,	\$4,228 71	
Miscellaneous (current expenses),	11,540 83	
	<hr/>	\$15,769 54
Extraordinary expense,		347 67
		<hr/>
Total liabilities,		\$16,117 21
Balance against the institution,		5,877 70

SUMMARY OF CURRENT EXPENSES FOR FOURTEEN MONTHS ENDING
Nov. 30, 1906.

Total expenditures for fourteen months,	\$185,444 11
Unpaid bills,	15,769 54
	<hr/>
	\$201,213 65
Deducting amount of sale of supplies to patients,	6,209 72
	<hr/>
	\$195,003 93
Deducting further increase of supplies on hand Nov. 30, 1906,	2,269 45
	<hr/>
	\$192,734 48
Supplies on hand Sept. 30, 1905,	\$11,815 00
Supplies on hand Nov. 30, 1906,	14,084 45

Dividing this amount by the daily average number of patients, 338, gives an average cost for the fourteen months of \$570.22, equivalent to an average weekly cost of \$9.38.

RUTLAND, MASS., Jan. 21, 1907.

I have this day examined the accounts of the treasurer of the Massachusetts State Sanatorium, and have found them correct.

C. E. WATSON,
Expert Accountant.

The farm account is as follows : —

DR.	
Blacksmith,	\$274 85
Blankets and stable supplies,	88 67
Board of men,	1,487 50
Fertilizers and seeds,	1,062 18
Freight and miscellaneous supplies,	109 98
Grain and feed for stock,	3,472 85
Labor, not on pay roll,	1,074 78
Live stock,	904 00
Pay roll,	5,794 48
Tools, machinery and repairs,	141 65
Veterinary,	121 50
Waste from sanatorium kitchen,	200 00
Decrease of live stock on farm, as per inventories of 1905 and 1906,	419 00
	<hr/>
	\$15,151 44
Balance in favor of farm,	1,243 11
	<hr/>
	\$16,394 55
CR.	
Board of driving horses, at \$15 per month,	\$930 00
Labor for sanatorium, — putting in ice, hauling provisions from station, etc.,	1,350 34
Milk, 152,309 quarts, at \$0.04 $\frac{1}{4}$,	6,473 14
Vegetables supplied, as per following list,	1,396 75
Sold : —	
Cows,	291 50
Fertilizer,	13 00
Grease,	200 00
Hogs,	2,077 84
Loam,	5 75
Wagon,	22 00
Products of the farm on hand, as estimated Dec. 1, 1906, per list following,	3,304 23
Eleven acres of pasture land plowed and prepared for season of 1907, at \$30 per acre,	330 00
	<hr/>
	\$16,394 55

Products of the Farm delivered to the Sanatorium during the Fourteen Months ending Nov. 30, 1906.

Apples, 4 barrels,	\$6 00
Apples, crab, 1 box,	75
Beans, shell, 13 bushels, at \$1.25 to \$1.50,	18 75
Beans, wax, 22 bushels, at \$1 to \$1.25,	26 50
	<hr/>
Amount carried forward,	\$52 00

<i>Amount brought forward,</i>	\$52 00
Beets, 114 $\frac{3}{4}$ bushels, at \$0.45 to \$0.75,	73 41
Beef, at \$0.06 and \$0.07,	91 37
Cabbage, 67 $\frac{1}{2}$ barrels, at \$0.75 to \$1,	55 63
Carrots, 105 $\frac{1}{4}$ bushels, at \$0.60 to \$1,	68 38
Cauliflower, 99, at \$1 to \$1.50 per dozen,	11 97
Celery, 209 $\frac{1}{2}$ bunches, at \$0.75 to \$1.50,	272 04
Corn, 235 boxes, at \$0.40 to \$0.50,	95 93
Cucumbers, 28,135,	128 34
Leeks, 68 bunches, at \$0.50,	34 00
Lettuce, 168 dozen, at \$0.25 to \$0.50,	63 15
Pears, 7 boxes, at \$1,	7 00
Peppers, green, 9 boxes,	7 05
Peppers, 2 $\frac{3}{4}$ pecks,	54
Peas, 34 bushels,	56 25
Radishes, 7 boxes, at \$0.80,	5 60
Rhubarb, 795 pounds, at \$0.02 $\frac{1}{2}$,	19 88
Potatoes, 82 $\frac{1}{2}$ bushels, at \$0.50 to \$0.60,	47 52
Pumpkins, 196,	9 00
Spinach, 47 $\frac{1}{2}$ bushels, at \$0.25 to \$0.50,	16 26
Squash, 123 $\frac{1}{2}$ barrels, at \$0.75 to \$1,	122 75
Swiss chard, 22 $\frac{1}{2}$ bushels, at \$0.25,	5 63
Tomatoes, 124 $\frac{1}{2}$ boxes, at \$0.50 to \$1.50,	91 75
Tomatoes, green, 17 bushels, at \$0.75,	12 75
Turnips, 119 bushels, at \$0.40 to \$1,	48 55
	<hr/>
	\$1,396 75

On Hand Dec. 1, 1906.

Apples, 12 barrels, at \$2,	\$24 00
Cabbage, 3,173 pounds, at \$1 a hundred,	31 73
Carrots, 23 bushels, at \$0.65,	14 95
Wood, 50 cords, at \$4,	200 00
Turnips, 173 bushels, at \$0.35,	60 55
Ensilage, 170 tons, at \$6,	1,020 00
Hay, 100 tons, at \$18,	1,800 00
Hungarian, 2 tons, at \$15,	30 00
Rowen, 3 tons, at \$15,	45 00
Oat fodder, 4 tons, at \$12,	48 00
Rye, 40 bushels, at \$0.75,	30 00
	<hr/>
	\$3,304 23

In connection with the farm report, it is to be especially noted that the hay crop for the last year has been double that of the previous year. For several years we have been increasing our acreage under cultivation, with the expectation of being better equipped in farm buildings for carrying on the work of the farm. We believe it would pay to utilize the

lands of the institution to best advantage. In order to do so, additional equipment is necessary.

Miss Florence M. Fraser, dietitian and steward, resigned January 1, at which time a rearrangement of this work was made. Miss Ruth Montague came to the sanatorium as dietitian, and Charles E. Carroll, for several years bookkeeper here, took on the additional duties of steward. The new arrangement has been very satisfactory. Miss Mary E. Sullivan, head nurse in the men's wards, after eight years of faithful service left the sanatorium in September, to open a private sanatorium in the Berkshires. William F. Moore, having given satisfaction as chief engineer since the opening of the institution, has resigned, and will be succeeded within the next month by Walter C. Brown. Thomas N. Stone, M.D., junior assistant physician, resigned in January to accept a position at the Boston City Hospital. This place was temporarily filled by Joseph W. O'Connor and Solon W. Peters until July 1, 1906, when a rearrangement of the medical work brought about the appointment of three junior assistants, Archibald W. Hughes, M.D., Charles F. Mahoney, M.D., and John E. Runnells, M.D.

To the donors of books, magazines, newspapers, clothing for patients and all other articles, and to the various charitable organizations and individuals who have given financial assistance to many patients during the year, grateful acknowledgment is expressed.

In concluding my eighth and last report as superintendent and treasurer of the sanatorium, I desire to record my appreciation of the satisfactory services rendered by the various employees, and especially the never-failing loyalty manifested by the ex-patients who are workers, and to whom much of the success of the institution is due. As my assistant in managing the financial affairs of the sanatorium for almost seven years, Charles E. Carroll has been pre-eminently trustworthy and efficient.

I wish also to express again to the trustees my thanks for their repeated personal kindness and for their constant official support.

Respectfully submitted,

WALTER J. MARCLEY.

REPORT OF THE VISITING PHYSICIANS.

Nov. 30, 1906.

To the Trustees of the Massachusetts State Sanatorium.

LADIES AND GENTLEMEN : — Owing to the fact that the public institutions under the control of the State are now expected to make their official reports on November 30, instead of on September 30, as heretofore, our present report will cover a period of fourteen months, instead of the usual twelve, and our numbers will naturally seem larger, on this account. The percentages, however, will offer a proper basis for comparison.

Whole number of patients discharged during the fourteen months, .	1,139
Number who remained only about one month, and whose cases are therefore not considered,	298
Number taken into consideration in our report,	841

As in other years, some of these 298 were found, after a trial of three or four weeks, to have more lung trouble than could be expected to yield readily to treatment, and were therefore asked to give up their places to those whose chances of recovery seemed to be more hopeful. It may be added that on admission most of these cases were not considered very favorable by the admitting physicians, but, in the effort to avoid doing them an injustice by refusing them outright, if there was any doubt, they were given the benefit of it by a trial chance. Others left on account of homesickness, or because they were disinclined to obey the rules, or because, after trying the life three or four weeks, they came to the conclusion that they could do the same thing just as well in some other place which better suited their fancy. A few others were admitted to be put under observation, and were afterwards found not to have tuberculosis.

The following table has been prepared on the basis of our former reports, and enables one to compare the results of treatment for the past eight years and two months, in fact,

since our sanatorium was first opened for the reception of patients: —

Table of Results according to the Rutland Classification for the Fourteen Months ending Nov. 30, 1906.

	Incipient.	Moderately advanced.	Advanced.	Total.	Per Cent.
"Arrested" or "apparently cured," .	221	95	13	329	39.1
Improved,	74	234	130	438	52.1
Not improved,	2	27	45	74	8.8
	297	356	188	841	—

Per cent. of incipient cases "arrested" or "apparently cured," 74.4

Comparison of Percentages in the First, Second, Third, Fourth, Fifth, Sixth, Seventh and Eighth Years.

	1898-99.	1899-1900.	1900-01.	1901-02.	1902-03.	1903-04.	1904-05.	1905-06.
Per cent. of "arrested" or "apparently cured" cases, . . .	34.28+	42.35	46.12	48.31	48.97	44.8	33.7	39.1
Per cent. of all classes of "improved" cases,	39.36+	44.70	47.64	44.51+	43.00+	47.7	58.9	52.1
Per cent. of "not improved" cases,	26.04+	12.95	5.74	6.73+	7.90+	7.4	7.4	8.8

Percentage of Incipient Cases arrested or apparently cured.

	1898-99.	1899-1900.	1900-01.	1901-02.	1902-03.	1903-04.	1904-05.	1905-06.
"Arrested" or "apparently cured,"	64.60	72.90	73.00	72.00	72.60	75.8	64.2	74.4

The next table shows the results according to the classification suggested by the National Association for the Study and Prevention of Tuberculosis at its meeting in Washington, D. C., in May, 1905, and can be compared with our last year's report under this heading. Both tables show a somewhat better result than we obtained last year.

It must be remembered, as was stated a year ago, that in all probability many of the second class in this table (the arrested cases) could have been put into the first class (the apparently cured) if the patients could have been examined and classified on the day of this report, instead of at the time of their discharge; for, as a great majority of our patients are wage earners, and dependent upon their own efforts for their daily bread, it very often happens that we cannot persuade them to finish out with us the extra three months required by this classification to complete a theoretical cure, when they consider that all their active symptoms have disappeared, and that they are practically well. Of course we ourselves feel that not only this but also still more time would be profitably spent by them in remaining to clinch the nail which apparently may have been driven home.

It must also be remembered that whereas, by our old so-called Rutland system, the words "apparently cured" and "arrested" were used synonymously, they are by the national system used to represent two separate and distinct classes, as follows: —

Apparently cured. — All constitutional symptoms and expectoration with bacilli absent for a period of *three months*, the physical signs to be those of a healed lesion.

Arrested. — Absence of all constitutional symptoms; expectoration and bacilli may or may not be present; physical signs stationary or retrogressive; the foregoing conditions to have existed for at least *two months*.

By the old Rutland system either or both terms expressed practically the same idea that "apparently cured" now represents in the national system, except that the three-months period is not always insisted upon.

Table of Results according to the "National Association" Classification for the Fourteen Months ending Nov. 30, 1906.

	Incipient.	Moderately advanced.	Far advanced.	Total.	Per cent.
Per cent. apparently cured, . . .	50.4	17.6	3.7	-	26.16
Number apparently cured, . . .	151	62	7	220	-
Per cent. arrested,	40.1	41.2	18.1	-	35.67
Number arrested,	121	145	34	300	-
Per cent. improved,	8.9	33.2	55.3	-	29.48
Number improved,	27	117	104	248	-
Per cent. progressive,6	8.0	22.8	-	8.68
Number progressive,	2	28	43	73 ¹	-
	301	352	188	841	-

¹ Including 10 deaths.

By the Rutland classification 74.4 per cent. of our incipient cases were apparently cured or arrested, and 29.4 per cent. were improved.

By the National Association classification over 50 per cent. of our incipient cases were apparently cured, over 40 per cent. arrested, and almost 9 per cent. improved.

This showing is not quite so satisfactory as our earlier reports, for the reason that, with our largely increased number of beds, we are obliged, in order to keep them filled, to take in more advanced cases than formerly. In any State, the smaller the proportion of sanatorium beds to the total population of the State the greater will be the percentage of recoveries.

Even at the risk of repeating what has often been said before, but what is not yet properly appreciated by the public at large, we cannot refrain from again calling attention to the fact that very much can be done for the really incipient cases and comparatively little for the advanced cases, as the statistics of all sanatoria show. Our reiterated plea, therefore, is that tuberculous patients be sent to us as early as possible, and long before the general public can discover their condition.

Other statistics follow : —

Of the 841 "considered" cases, the average length of stay was 5 months and 18 days.

Of these, the number who gained weight was	782
And their average gain was	13½ pounds.
Of these 841, the number who lost in weight was	59
And their average loss was	6 pounds.
The greatest individual gain in weight was	45 pounds.
All of these 841 showed bacillary sputum except	160
Of these 160 tuberculin reaction was positive in	54
Of the remaining 106 hæmorrhage occurred in	29

The new veranda for the men's infirmary has proved to be a very satisfactory and inexpensive addition, allowing patients in beds and chairs to get more thoroughly the out-door treatment, especially in warm weather. More of them could be built to advantage.

The new infirmary, built of brick, accommodating about 30 patients, mostly in single rooms, is occupied for the first time to-day. It is very attractive, and in a beautiful location.

We would like to recommend the construction of a cheap building of wood, to be occupied as an *amusement room* by those patients for whom it may be considered wise to indulge more or less in pool, billiards, shuffleboards, light ten-pins, cards, etc. A large and cheerful fireplace in a field-stone chimney would be a welcome addition.

We would also recommend the establishment of what is called a "*farm colony*," either in connection with our sanatorium and under the supervision of your Board, or in some other part of the State, as may be deemed best, where those who have been discharged as greatly improved and are able to do a certain amount of work and yet are not able to re-enter the struggle for existence out in the world unaided, may under intelligent supervision become gradually toughened to endure the strain. We now employ as helpers quite a number of ex-patients, who by doing proper work under careful supervision have received much benefit, but naturally only a comparative few can be thus aided.

We desire to state that since its opening this has been practically a temperance institution. Contrary to old customs, the use of alcohol has been abolished except in rare instances. We are sure that alcohol is one of the most common causes of tu-

berculosis, and believe that the disease is better treated without it. Even the old, time-honored cod-liver oil has fallen into disrepute with us, being given only in about one case in a hundred. Good, common food answers the purpose much better; and, while we believe in generous supplies of the most nourishing food, we do not believe in the indiscriminate and unlimited stuffing which is advocated by some, and from which we think there is now a perceptible reaction, as its disadvantages become manifest.

The rearrangement of the work of the resident physicians, and the substitution of the three new assistant physicians for the former pathologist to do laboratory and other work, last July, has in our opinion been followed by very satisfactory results, and we advise a continuance of the same system.

We desire to express our appreciation of the faithful and conscientious work of all the physicians and nurses who have been associated with us in the conduct of the sanatorium.

We regret to learn of the resignation of the superintendent, Dr. Walter J. Marcley, who since the beginning has managed the affairs of the institution with great skill and ability. We wish him great success in his new position in the west.

Respectfully submitted,

HERBERT C. CLAPP, M.D.
EDWARD O. OTIS, M.D.

LIST OF WAGES.

Examining and visiting physicians (per annum), . . .	\$1,200 00
Superintendent and treasurer (per annum), . . .	2,500 00
Matron and superintendent of nurses (per annum), . . .	1,200 00
Assistant physicians (per annum), . . .	1,200 00
Assistant physicians (per annum), . . .	200 00
Clerk and steward (per month), . . .	65 00
Chief engineer (per annum), . . .	1,100 00
Dietitian (per month), . . .	60 00
Farmer (per annum), . . .	900 00
Stenographer (per month), . . .	35 00
Nurses, day (per month), . . .	\$30 to 40 00
Nurses, night (per month), . . .	40 00
Attendants (per month), . . .	\$13 to 30 00
Supervisor, male (per month), . . .	35 00
Supervisors, female (per month), . . .	\$17 to 35 00
Clerk's assistants, . . .	20 to 25 00
Cook (per month), without living, . . .	85 00
Baker (per month), without living, . . .	75 00
Assistant cook, . . .	40 00
Engineers and firemen (per month), without living, . . .	\$50 to 60 00
Firemen (per month), . . .	30 00
Carpenter (per month), without living, . . .	70 00
Carpenter (per month), . . .	25 00
Night attendant (per month), without living, . . .	40 00
Diet cook (per month), . . .	25 00
Head laundress (per month), . . .	30 00
Storeroom man (per month), . . .	30 00
Storekeeper, . . .	35 00
Pharmacist (per month), . . .	18 00
General work, male and female (per month), . . .	\$10 to 25 00
Laundry help, male (per month), . . .	15 to 25 00
Laundry help, female (per month), . . .	15 to 20 00
Ward help, male (per month), . . .	15 and 18 00
Kitchen help, male (per month), . . .	16 to 23 50

Coachman (per month),	\$25 00
Teamsters (per month),	\$25 and 28 00
Farm help (per month),	20 to 25 00
Farm help (per month), without living,	40 00
Farm help (per day), without living,	\$1.50 to 1 75
Waiters, male (per month),	15 and 16 00
Waiters, female (per month),	13 to 18 00
Serving-room men (per month),	16 to 20 00
Serving-room girls (per month),	13 and 14 00
Diet kitchen girls,	13 to 18 00

III.

